



NILES®



INSTALLATION GUIDE



FOR USE WITH NILES PASSIVE SUBWOOFERS
SUBWOOFER AMPLIFIER

SWA-500M

CONGRATULATIONS!

Thank you for purchasing the Niles **SWA-500M**. The SWA-500M is a Class D mono amplifier designed to power up to two passive (non-powered) subwoofers. Like all Niles products, the SWA-500M is built to the highest standards of quality and reliability, and with proper installation and operation, you'll enjoy years of trouble-free use.

Niles is one of the industry's most respected manufacturers of custom installation audio/video components and accessories. To see the complete line of Niles products, visit us at: www.nilesaudio.com

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INTRODUCTION

Bass or low frequency effect (LFE) is a critical part of a well designed audio/video system. The Niles SWA-500M is a highly efficient Class D amplifier designed specifically for up to two passive (non-powered) subwoofers. When combined with high quality subwoofers, the SWA-500M will provide excellent bass reinforcement for home theater and home audio applications. Installing the right amplifier for your subwoofer(s) will give you that thunderous, accurate bass that makes movies and music so enjoyable.

The SWA-500M uses the latest Class D technology. Class D amplifiers are beautifully efficient so you'll get a lot more power with less current. Less input current reduces power supply size and generates less waste heat. This process allows Class D amps like the SWA-500M to produce more power than amps of larger size. As you read this manual and become more familiar with the SWA-500M and Class D technology, you'll understand why Niles products are unequaled.



Figure 1. Niles SWA-500M high-power subwoofer amplifier.

IMPORTANT SAFETY INSTRUCTIONS



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equivalent triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To reduce the risk of fire or electrical shock, do not expose this equipment to rain or moisture

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in according with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plug, convenience receptacles, and the point where they exit from the apparatus.
11. Unplug this apparatus during lightening storms or when unused for long periods of time.
12. Only use attachments and accessories specified by the manufacturer.
13. Use only with a cart, stand rack, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way such as the power plug cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquid, such as vases or drinks, are placed on the equipment.
16. To completely disconnect this equipment from the AC mains, disconnect the power supply cord plug from the AC receptacle.
17. The main plug of the power supply cord shall remain readily operable.





FEATURES AND BENEFITS

MAXIMUM SUBWOOFER PERFORMANCE

The SWA-500M Class D amplifier is designed specifically for bass reinforcement for passive (non-powered) subwoofers. The SWA-500M provides 500 Watts Continuous Output Power (<1% THD +N into 4 ohm). Because the SWA-500M's power output is dedicated to low frequency effects, you'll get the maximum performance your subwoofer(s) can provide.

SMOOTH AND ACCURATE BASS

The SWA-500M Class D amplifier will deliver strong, smooth bass with breathtaking realism. The advanced audio circuitry and high quality components inside the SWA-500M deliver fast and accurate power to your subwoofers. Variable low pass/variable high pass filters reduce unwanted frequencies so your subwoofers can focus on what they do best—reproducing great low frequency sound effects.

EFFICIENT AMPLIFICATION TECHNOLOGY

The SWA-500M's digital amplifier circuitry and quality components ensure superior sound quality. This high power stand-alone subwoofer amplifier will deliver more power with reduced current demands than conventional amplifiers.

PERSONAL BASS CONTROL

The SWA-500M's controls are located in the front and enable you to set the desired bass level according to your personal taste for music and movies. A bass boost selector located on the back enables you to select a frequency to enhance the sound of the connected subwoofer(s).

FLEXIBLE INSTALLATION & MULTIPLE BASS CAPABILITY

Whether you have a large dedicated home theater, sophisticated listening room, or a simple audio/video system, the SWA-500M can be configured for use with various audio components like preamp processors and receivers. In addition, the SWA-500M's internal circuitry and sub switch feature allow you to connect up to two passive subwoofers (the recommended number by home theater professionals) and enjoy rich bass with superior sonic quality.

QUALITY YOU CAN COUNT ON

Since 1978, Niles Audio has been a leading manufacturer of custom-installed home entertainment products. Recognized around the world for designing and manufacturing reliable, durable, solution-based products, Niles offers more than 500 products for whole-house distribution and integration of audio/video systems, loudspeakers, receivers, amplifiers, automation devices, controls, and accessories.

CLEANING

Do not use cleaning liquids or chemicals on this product. Use a dry, soft cloth or paper towel to clean. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquid, such as vases or drinks, are placed on the equipment.

INSTALLATION CONSIDERATIONS

SWA-500M PLACEMENT

The SWA-500M Subwoofer amplifier is designed for home theater and home audio bass reinforcement. Place the SWA-500M on a sturdy shelf or mount the SWA-500M in a rack using the included rack 'ears.' Make sure that the location you choose can support the weight of the amp. Like all hi-fi components, the SWA-500M should have proper ventilation, and the ventilation slots in the amp's cover should not be obstructed.

When rack mounting the amplifier, ensure good airflow and adequate ventilation (3.5" minimum open space) around the unit. If you are placing the SWA-500M inside a cabinet, be sure that the rear of the cabinet is open to fresh air for proper cooling. If you are not rack mounting this amplifier, make sure that it is placed on a flat level surface. Never block the amplifier's ventilation slots or expose the amplifier to moisture or heat sources.

Figure 2. Cabinet installation

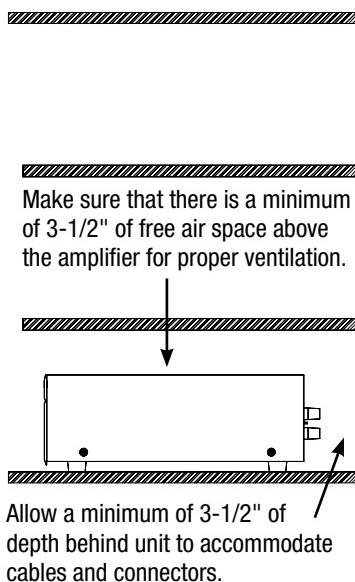
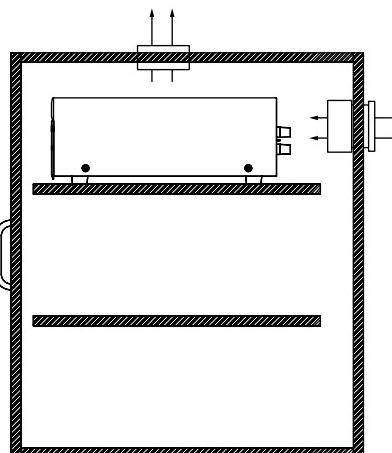


Figure 3. Enclosed cabinet installation



If mounting the SWA-500M inside a cabinet, be sure the amp has proper ventilation. Consider using the Niles FM-1R or FM-1 system cooling module.



RACK MOUNTING THE SWA-500M

1. Before installing the rack ears, remove the screws attached to the sides of the unit. Install the included rack ears as shown in Figure 4 using a #2 Phillips screwdriver. Do not use any other screws or damage to the amplifier may result.
2. Place the SWA-500M in desired location within rack. Support the weight of the amplifier from the bottom and carefully install the left and right lower rack ear screws first.
3. Once the lower screws are completely installed, you may release the bottom of the amplifier to install the left and right upper rack ear screws last.
4. Connect the amplifier according to the type of system desired.

NOTE: SEE **APPLICATIONS** STARTING ON PAGE 11 FOR DETAILED WIRING CONNECTIONS FOR YOUR APPLICATION.

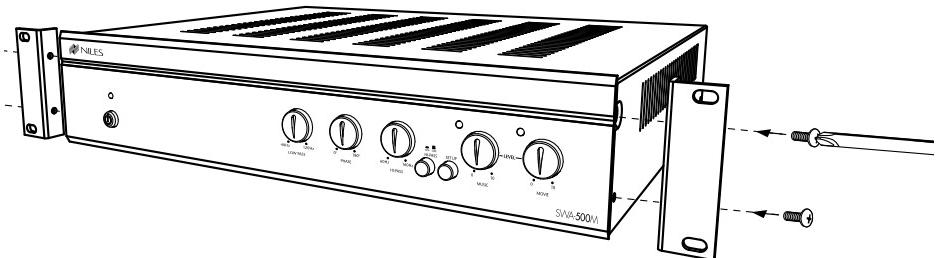


Figure 4. Install the included rack ears as shown using a #2 Phillips screwdriver

CONNECTING THE SWA-500M

CAUTION: BEFORE MAKING ANY CONNECTIONS, BE SURE TO TURN OFF ALL COMPONENTS IN THE SYSTEM, INCLUDING LOUDSPEAKERS.

CONNECTION TO AUDIO/VIDEO SOURCES

The SWA-500M connects to audio/video sources via RCA audio cables (also called line level). These inputs accept audio signals from a receiver or surround sound processor. For line-level connections, only use high-quality RCA cables that feature low impedance, double shielding and gold-plated connectors. This will help ensure the lowest possible noise and best overall performance. (See **CONTROLS AND CONNECTORS** on page 7. Your authorized Niles dealer can recommend good quality cable.)

LOUDSPEAKER WIRE

To connect the SWA-500M to your subwoofers(s), use an insulated 2-conductor loudspeaker wire (see **CONTROLS AND CONNECTORS** on page 7). The SWA-500M gold-plated, 5-way binding posts will accept bare wire, banana plugs, and spade-type plugs. We recommend using a minimum of 16-gauge wire. For wiring runs longer than 40 feet, we recommend 14-gauge wire. The SWA-500M's 5-way binding posts will accommodate up to 12-gauge wire directly. Larger sizes can be accommodated via pin connectors. To maximize performance, consider purchasing special high-quality speaker cables. Consult your Niles dealer to find the right cables for your system.

Be sure to observe correct polarity when connecting your loudspeakers. Positive (+) goes to the **RED** post and negative (-) goes to the **BLACK** post. If the polarity of one connection is accidentally reversed, your bass output will be very weak and imaging will sound smeared.

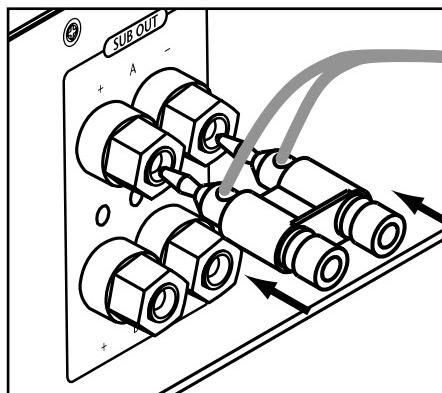


Figure 5. Connecting loudspeaker to SWA-500M

RUNNING WIRES IN WALLS OR CEILINGS

When running wire inside walls or ceilings, use special jacketed cable (CL-2 or CL-3) to protect the wire and to meet local electrical and fire codes. In some areas, conduit is also required. For a trouble-free installation, low-voltage wire such as loudspeaker wire must be run in accordance with the National Electrical Code and any applicable provisions of the local building code. If you are unsure of the correct installation techniques, wire jacket, or type of conduit to use, consult a professional audio/video installer, building contractor, or the local building and inspection department.

CONTROLS AND CONNECTORS

The SWA-500M's easy operation controls are located on the unit's front panel, as shown in **Figure 6**. The controls function as follows:

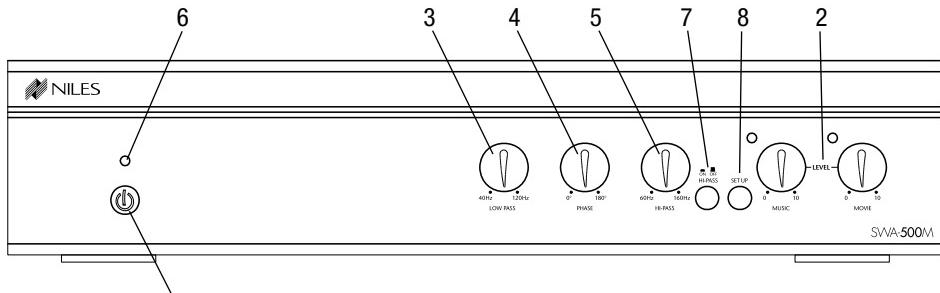


Figure 6. Front Panel control on the SWA-500M

1. **(Master) POWER Switch:** Use this control to power the SWA-500M On or Off.
2. **MUSIC/MOVIE LEVEL and SETUP Controls:** Because bass levels will differ depending on whether you are watching a movie or listening to music, the SWA-500M includes MUSIC/MOVIE LEVEL and SETUP Controls. While listening to music, push the SETUP switch to MUSIC and adjust the MUSIC LEVEL control to set your desired bass level. Similarly, while listening to a movie, push the SETUP switch to MOVIE and adjust the MOVIE LEVEL control to set the desired bass level. Each level control includes an LED indicator to identify which one is currently active as triggered by your home theater sound processor or receiver. Also see **CALIBRATING THE SWA-500M** on page 15.
3. **LOW PASS Frequency Control:** Use this control to set the subwoofer's low-pass crossover frequency from 40 to 120 Hz. For more details, see **CALIBRATING THE SWA-500M** on page 15.
4. **PHASE Control:** Use this control to set the subwoofer's phase response from 0 to 180°. See **CALIBRATING THE SWA-500M** on page 15.

(CONTINUED ON NEXT PAGE)

- HIGH PASS Frequency adjustment with ON/OFF switch:** This feature allows you to run R/L loudspeaker wires (RCA line level wires) from an amp/receiver/processor into the SWA-500M and then back to the main audio amplifier to the R/L loudspeakers. When the HIGH PASS Frequency switch is engaged, you can then control the frequencies to those R/L speakers via the front control knob. Use the HIGH PASS control to set the high-pass crossover frequency from 60 to 160 Hz (according to your loudspeaker manufacturer's recommendation) to drive a satellite loudspeaker system amplifier from the line-level AUDIO OUT jacks. To activate the filtered signals, set the ON/OFF switch to ON.
- The MODE indicator (on the far left) shows which power mode is active, as set by the (Auto) POWER switch: Green is ON; Red is STANDBY.**
- High Pass Frequency Adjustment On/Off Switch.**
- Music/Movie Mode Setup Mode.**

SIGNAL CONNECTORS AND POWER CONTROLS

The SWA-500M's signal connectors and power controls are located on the unit's rear panel, as shown in **Figure 7**. The controls function as follows:

NOTE: SEE **APPLICATIONS** STARTING ON PAGE 11 FOR DETAILED WIRING CONNECTIONS FOR YOUR APPLICATION.

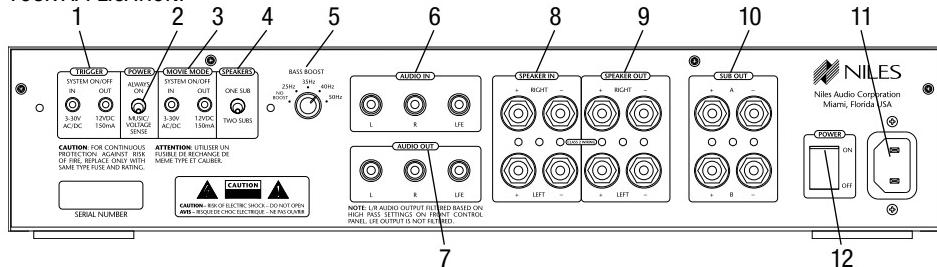


Figure 7. Back Panel Control on the SWA-500M

- 12V POWER TRIGGER:** The SWA-500M can be turned on or off using the power switch on the back panel or it can turn on or off automatically via the 12V Power Trigger. For external power triggering, use a mini (3.5 mm) plug to connect the IN jack to a power on/off trigger signal from a home theater sound processor or receiver. The back-panel switch overrides this function and must be in the on position for the 12V power trigger to work. The input accepts (AC or DC) control signals with power ranging from 3 Volts to 30 Volts. Tip is positive. Power off is 0 Volts DC (or AC). You can use the OUT jack to pass the POWER TRIGGER signal to another SWA-500M amplifier or other trigger-activated device, such as motorized speakers or rear effects speaker's dipole/bipole mode. Voltage will be present on the output jack whenever the amplifier is active. This is indicated by the green LED on the front panel.



NOTE: FOR A HOME THEATER RECEIVER NOT EQUIPPED WITH A POWER TRIGGER OUTPUT, CONSIDER USING A NILES 12-VOLT POWER SUPPLY AS A TRIGGER SIGNAL THAT IS ACTIVATED VIA A SWITCHED AC OUTLET ON THE RECEIVER. SEE **FIGURE 7** FOR CONNECTION DETAILS.

2. **(Auto) POWER Switch:** Use the **ALWAYS ON** mode to leave the SWA-500M always on. Use the **MUSIC/VOLTAGE SENSE** mode to automatically power on the SWA-500M when an audio signal or trigger voltage is present. When either signal is absent for 15 minutes, the SWA-500M will enter the standby mode.

NOTE: THE ALWAYS ON AND MUSIC/VOLTAGE SENSE SETTINGS ARE ONLY ACTIVE AFTER (MASTER) POWER IS SET TO **ON**.

3. **MOVIE MODE TRIGGER:** For external movie/music mode triggering, use a mini (3.5 mm) plug to connect the **IN** jack to a movie trigger signal from a home theater surround processor or receiver. The 3 to 30 Volts (AC or DC) signal will set the SWA-500M to movie mode, while a 0 Volts (AC or DC) signal will keep it in the music mode. Again, tip is positive. Use the **OUT** jack to pass the movie trigger signal to another SWA-500M amplifier.

NOTE: IF THE SETUP SWITCH (SEE **FIGURE 6** ON PAGE **7**) ON THE FRONT PANEL IS SET TO **MUSIC**, A 3 TO 30 VOLTS (AC OR DC) TRIGGER SIGNAL WILL CHANGE OPERATION OVER TO THE **MOVIE MODE**. IF THE SETUP SWITCH IS ALREADY SET TO **MOVIE**, A TRIGGER SIGNAL HAS NO EFFECT, SINCE THE MODE IS ALREADY SET TO **MOVIE**.

4. **SPEAKER switch:** Use this switch to select the number of subwoofers (1 or 2) that are connected to the amplifier. Be sure that it is set to the correct position before turning on the amplifier or damage to the amplifier may result. If only one subwoofer is connected and the switch is set to the “Two sub” position, then no sound will be output from the amp.
5. **BASS BOOST selector:** Use this rotary switch during setup to select a frequency to enhance the sound of the subwoofer(s) connected. It should be set to the “-3dB down frequency” of the subwoofer.
6. **AUDIO IN jacks:** Use these gold-plated line-level RCA input jacks to connect line-level stereo or LFE audio signals from a home theater receiver or processor. The LFE (Low Frequency Effects) input is unfiltered by the SWA-500M.
7. **AUDIO OUT jacks:** Use these gold-plated line-level RCA output jacks to connect line-level stereo and LFE audio signals to drive another SWA-500M amplifier. The LFE output is unfiltered, but the L/R output signals are routed through the variable (60 to 160 Hz) **HIGH-PASS** filter, and the response will be contoured according to filter settings.

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8. *Loudspeaker IN Binding Posts: As an alternative to the **AUDIO IN** jacks, use the loudspeaker-level, gold-plated, five-way binding posts to connect loudspeaker-level, stereo audio signals from a home theater receiver or whole-home audio system. Use this connection only if your home theater receiver does not have a subwoofer, LFE or pre-amp output.*

NOTE: DO NOT USE THESE CONNECTIONS WHEN USING THE LINE-LEVEL INPUTS.

9. *Loudspeaker OUT Binding Posts: As an alternative to the **AUDIO OUT** jacks, use the loudspeaker-level, gold-plated, five-way binding posts to connect loudspeaker-level, stereo audio signals to drive your front L/R satellite loudspeakers. These signals are routed through a fixed, 100 Hz (6 dB per octave) high-pass filter and the response will be contoured accordingly.*

NOTE: THERE WILL ONLY BE A SIGNAL ON THESE CONNECTIONS IF THE LOUDSPEAKER IN BINDING POSTS ARE USED.

10. *Subwoofer A and B Binding Posts: Use these to connect one or two subwoofers. Be sure that the Speaker Switch (see #4) is set correctly before turning on the amplifier or damage could result.*
11. *Detachable IEC Power Cord. If needed, replace the fuse with same type as follows.*
12. *Main power switch.*

APPLICATIONS

The SWA-500M subwoofer amplifier is very flexible and can be configured for use in various applications with associated external audio components, as shown in **Figures 8 through 11**. For other SWA-500M applications, consult your local Niles dealer for help in configuring your home theater system.

SWA-500M IN A TYPICAL HOME THEATER INSTALLATION

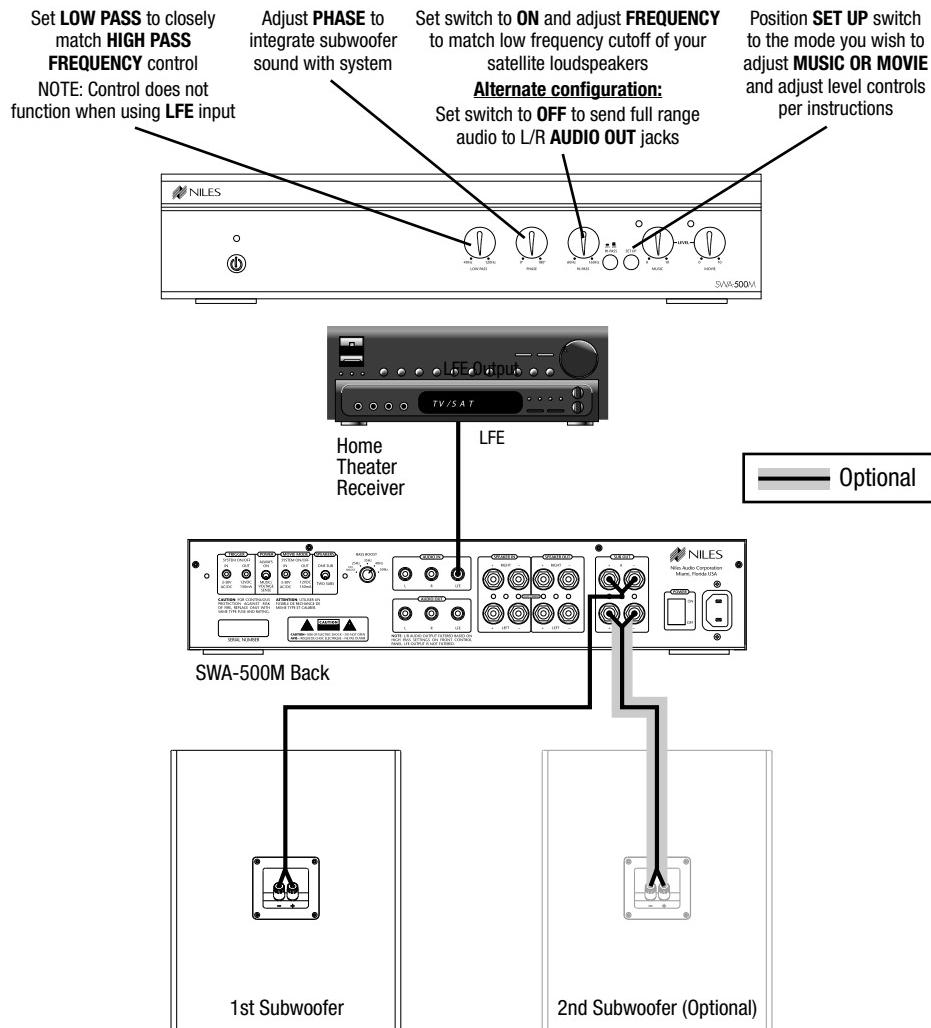
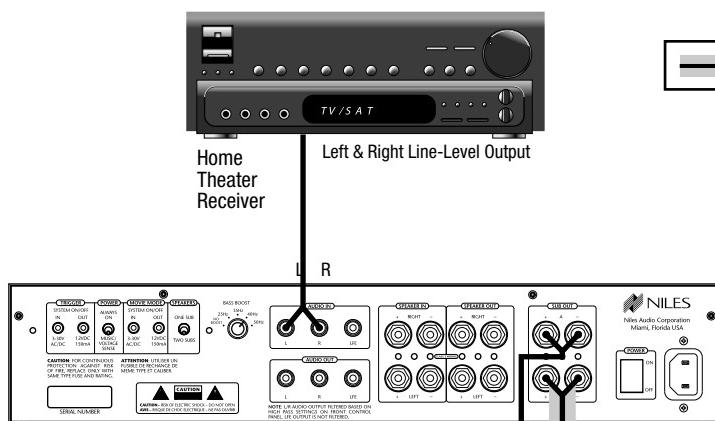
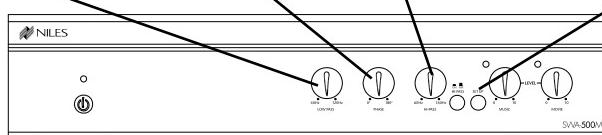


Figure 8. Line-level connection

SWA-500M AND LINE-LEVEL CONNECTION

- Set **LOW PASS** to closely match **HIGH PASS FREQUENCY** control
 NOTE: Control does not function when using **LFE** input
- Adjust **PHASE** to integrate subwoofer sound with system
- Set switch to **ON** and adjust **FREQUENCY** to match low frequency cutoff of your satellite loudspeakers
- Alternate configuration:** Set switch to **OFF** to send full range audio to L/R **AUDIO OUT** jacks
- Position **SET UP** switch to the mode you wish to adjust **MUSIC OR MOVIE** and adjust level controls per instructions



SWA-500M Back

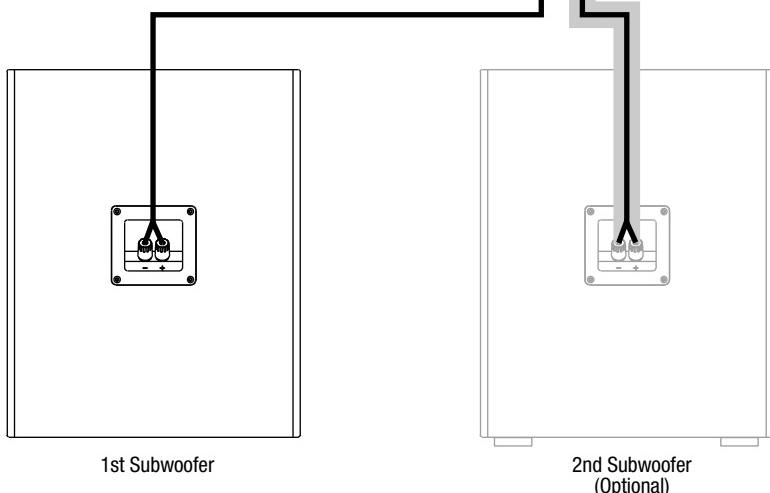


Figure 9. Line-level connection

SWA-500M AND LOUDSPEAKER LEVEL CONNECTION TO SATELLITE LOUDSPEAKERS

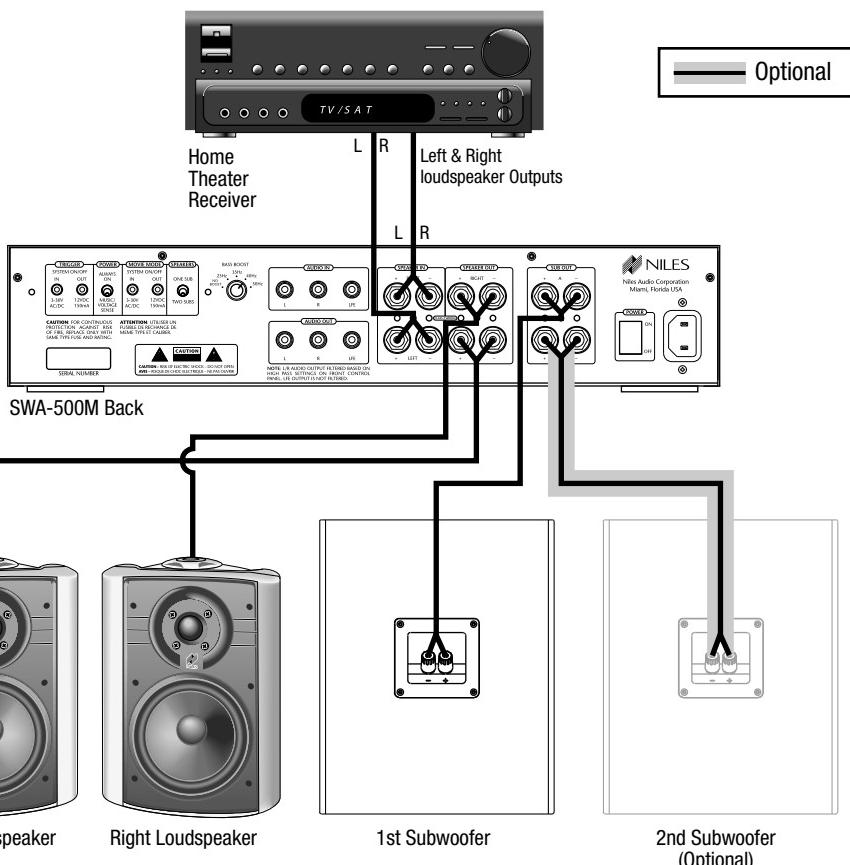
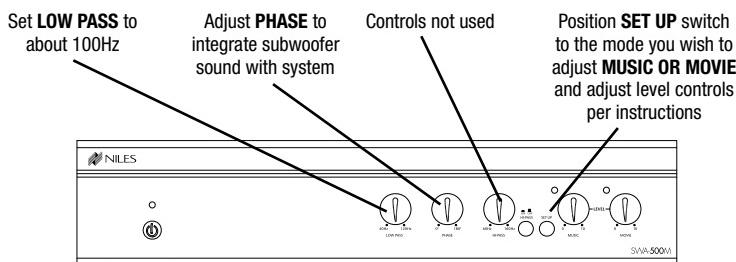


Figure 10. Connecting satellite loudspeakers

SWA-500M AND SATELLITE LOUDSPEAKER SYSTEM WITH EXTERNAL POWER AND MODE TRIGGERS

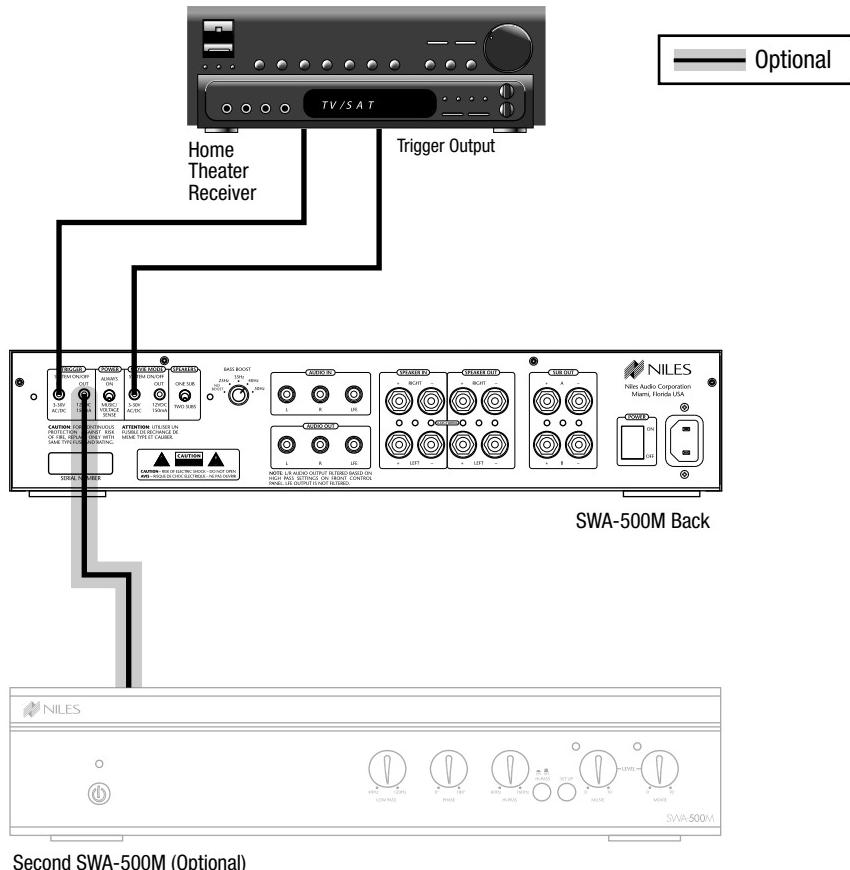


Figure 11. Trigger connection



CONNECTING THE SWA-500M

Connect the SWA-500M according to your application (see **APPLICATIONS** on page 11). Use high-quality RCA cables for all line-level connections (see **CONTROLS AND CONNECTORS** on page 7).

For applications with loudspeaker-level connections, perform the following steps:

1. *At each SWA-500M loudspeaker-level connection, separate the loudspeaker wire so that at least 2" of each conductor are free. Strip away 1/4 inch of insulation from each loudspeaker wire. Using correct polarity, connect the appropriate conductor to each five-way binding post.*

NOTE: OBSERVE CORRECT POLARITY: POSITIVE (+) GOES TO THE RED POST AND NEGATIVE (-) TO THE BLACK POST. IF YOU ARE UNSURE OF WIRE POLARITY, SEE THE SECTION, **CHECKING PHASE ON SATELLITE LOUDSPEAKERS**, ON PAGE 17.

2. *Connect the other end of the loudspeaker wires to the home theater receiver/amplifier and satellite loudspeakers in the same way.*
3. *Turn on the home theater receiver and calibrate all loudspeakers in the system according to the receiver (or surround processor) manufacturer's instructions.*

CALIBRATING THE SWA-500M

After installing the amplifier and making all the connections, set up the SWA-500M by performing the following steps. Performing these steps will maximize the SWA-500M's performance (see **CONTROLS AND CONNECTORS** page 7 for information on control operation).

1. *On the rear panel, set the (Master) **POWER** switch to **ON**. On the front panel, set the **POWER** switch to **ON**. Depending on your application, set the rear-mounted (Auto) **POWER** switch to **ALWAYS ON** or **MUSIC/VOLTAGE SENSE**.*
2. *On the front panel, set the following controls (and switches) to their initial positions:*
 - **HIGH PASS FREQUENCY** control = **120 Hz** (or value recommended by satellite loudspeaker manufacturer)
 - **PHASE** control = **0°**
 - **HIGH PASS FREQUENCY** control = **140 Hz** (or value recommended by satellite loudspeaker manufacturer)
 - **HIGH PASS ON/OFF** switch = **ON**
 - **LEVEL SETUP** switch = **MUSIC**
 - **MUSIC LEVEL** control = **5**
 - **MOVIE LEVEL** control = **5**

-
3. While playing a favorite music track, adjust your system's volume control to a comfortable level and listen to the bass level at your favorite listening position (e.g., couch). Next, move the **LEVEL SETUP** switch to **MOVIE** and play a favorite movie chapter, preferably a movie with a good amount of low frequency information. Listen to the bass level, and if desired, adjust the **MOVIE LEVEL** control to change the movie bass level to taste.
 4. Move the **LEVEL SETUP** switch back to **MUSIC** and play the music track again. If desired, adjust the **MUSIC LEVEL** control to taste.
 5. Continue listening to your favorite music and movie sources using the appropriate setting for **LEVEL SETUP**. If you want a more solid-sounding bass (with less overtones), try moving the **LOW PASS FREQUENCY** control toward the lower frequencies. Experiment with different frequency settings until you find one that sounds best. If needed, readjust the **MOVIE LEVEL** and **MUSIC LEVEL** controls (see steps 3 and 4 above).
 6. Continue listening to your favorite music and movie sources using the appropriate setting for **LEVEL SETUP**. Try experimenting with the **PHASE** control until you find its optimum setting. Depending on the subwoofer's placement, the bass should sound more pronounced when the phase has been optimized.
 7. Once all of these steps have been followed, you may use the rear-mounted control for **BASS BOOST** if you have not been able to achieve satisfactory bass performance. Set this switch the highest setting first (50Hz) and adjust the levels for Music and Movie modes. If further adjustment is needed, select the next lowest frequency for **BASS BOOST** and repeat adjustments until satisfied.



CHECKING PHASE ON THE SATELLITE LOUDSPEAKERS

Loudspeaker wire has two conductors. On applications with satellite loudspeakers, one conductor is attached to a component's negative (-) terminal, while the other is attached to a component's positive (+) terminal. Usually, the wire is marked for your convenience, but the marking can be done in the following different ways:

- *Stripe on one wire*
- *Ribbed area you can feel on one conductor*
- *Different colors of metal wire on each conductor*
- *Fabric strand or string wound into one of the conductors*

Of course, there are some wires that appear completely identical. So be careful, or you might make a connection mistake. If you do, one satellite loudspeaker will be playing "out-of-phase" with the other loudspeaker. A pair of out-of-phase loudspeakers works against each other, and the sound of the two playing together will be lacking in bass and sound "phasey." If you suspect the sound is not right, and you cannot see any markings on the wire, try this simple test:

1. *Stand halfway between the satellite loudspeakers*
2. *Play some music with the amplifier or receiver set to Mono*
3. *Listen to the richness of the bass and the loudness of the sound*
4. *Turn off the amplifier and reverse the connections on one (Left or Right) of the SWA-500M Loudspeaker OUT binding post pairs*
5. *Repeat the listening test with the same volume control setting. When the sound has a richer bass and is slightly louder, the satellite loudspeakers are working together or "in-phase"*

TROUBLESHOOTING GUIDE

If you experience a problem operating the SWA-500M, consult this guide first. The most common problems relate to hook up or improper control settings. Try to isolate the problem and check the control settings to determine the fault and make the necessary changes. If the problem persists, or you have additional questions, contact your local Niles dealer or Niles Technical Support at 1-800-289-4434, 305-238-4373 or techsupport@nileaudio.com.

PROBLEM: No sound

Solutions

Short circuit or loose wire at the speaker or amplifier terminals. Check that the connections are secure and that there are no loose strands of wire crossing from the positive to the negative terminals at the back of the amplifier and/or the speaker.

Short circuit or a break in the speaker wire. Disconnect the speaker wire at both ends, separate the 2 conductors at both ends and test with a meter for a short circuit. If there is no short, connect the two conductors at one end and test with a meter for continuity.

Speaker is not working. Connect the speaker to a channel that plays another speaker.

Audio cable to input is bad. Connect another cable that is known to be good.

Audio cable to the main inputs is bad. Connect another cable that is known to be good.

PROBLEM: Hum or buzz sound from the loudspeakers

Solutions

Hum or buzz may be caused by a ground loop between two of the other components in the system. To test for another ground loop, try reversing the AC plugs of each of the components in the system.

PROBLEM: Amplifier will not turn on

Solutions

Check for faulty cables, faulty source material, an ungrounded phono system or a defective component.

AC power cord must be plugged into a working outlet.

Master power switch must be on.

PROBLEM: Bass sound is weak and the stereo image is "phasey" or "blurry"

Solutions

The loudspeakers are wired out of phase. Reverse the connections at the back of one speaker.



SPECIFICATIONS

Continuous Output Power

<1% THD +N into 4 ohms: 500 watts

S/N ratio > 90dB

Volume Max and Input Shield Grounded

<2.0 mV

Variable Low Pass Filter

12 dB per octave -3dB @ 40Hz minimum position
-3dB @ 120Hz maximum position

Fixed Low Pass Filter

6dB per octave -3dB @ 125Hz

Variable High Pass Filter

12 dB per octave selectable switch
Auto Turn on sensitivity 3.0mV 50 Hz input

Input Sensitivity Rated Power

250 mV of input

High Level Input Sensitivity Rate Power

>3 volts of input

Delay off time

15-20 minutes

Power requirements

120/230 switchable internal

AC Cord IEC Removable

Two prong

High Pot Test

2kV@2mA, 60Hz, 2 sec.

Variable Line Level Output High Pass

12dB/Octave

- 3dB @ 60Hz – Knob full counter clockwise
- 3dB @160Hz – Knob full clockwise

LIMITED WARRANTY

NILES AUDIO CORPORATION ("NILES") WARRANTS ITS LOUDSPEAKER PRODUCTS TO THE ORIGINAL PURCHASER TO BE FREE OF MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF TWO YEARS FROM DATE OF PURCHASE.

THIS WARRANTY IS SUBJECT TO THE FOLLOWING ADDITIONAL CONDITIONS AND LIMITATIONS. THE WARRANTY IS VOID AND INAPPLICABLE IF NILES DEEMS THAT THE PRODUCT HAS BEEN USED OR HANDLED OTHER THAN IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED BY THE MANUFACTURER, INCLUDING BUT NOT LIMITED TO DAMAGE CAUSED BY ACCIDENT, MISHANDLING, IMPROPER INSTALLATION, ABUSE, NEGLIGENCE, OR NORMAL WEAR AND TEAR, OR ANY DEFECT CAUSED BY REPAIR TO THE PRODUCT BY ANYONE OTHER THAN NILES OR AN AUTHORIZED NILES DEALER.

TO OBTAIN WARRANTY SERVICE, TAKE THE UNIT TO THE NEAREST AUTHORIZED NILES DEALER, WHO WILL TEST THE PRODUCT AND IF NECESSARY, FORWARD IT TO NILES FOR SERVICE. IF THERE ARE NO AUTHORIZED NILES DEALERS IN YOUR AREA, YOU MUST WRITE TO NILES AND INCLUDE YOUR NAME, ADDRESS, MODEL AND SERIAL NUMBER OF YOUR UNIT, ALONG WITH A BRIEF DESCRIPTION OF THE PROBLEM. A FACTORY RETURN AUTHORIZATION NUMBER WILL BE SENT TO YOU. DO NOT RETURN ANY UNIT WITHOUT FIRST RECEIVING WRITTEN AUTHORIZATION AND SHIPPING INSTRUCTIONS FROM NILES.

IF THE ABOVE CONDITIONS ARE MET, THE PURCHASER'S SOLE REMEDY SHALL BE TO RETURN THE PRODUCT TO NILES, IN WHICH CASE NILES WILL REPAIR OR REPLACE, AT ITS SOLE OPTION, THE DEFECTIVE PRODUCT WITHOUT CHARGE FOR PARTS OR LABOR. NILES WILL RETURN A UNIT REPAIRED OR REPLACED UNDER WARRANTY BY SHIPPING SAME BY ITS USUAL SHIPPING METHOD FROM THE FACTORY (ONLY) AT ITS EXPENSE WITHIN THE UNITED STATES OF AMERICA. THERE ARE NO OTHER WARRANTIES, INCLUDING WITHOUT LIMITATION, EITHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER/PURCHASER. NILES SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES EXCEPT TO THE EXTENT PROVIDED (OR PROHIBITED) BY APPLICABLE LAW.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

FOR THE NAME OF YOUR NEAREST AUTHORIZED NILES DEALER CONTACT:
NILES AUDIO CORPORATION, P.O. BOX 160818, MIAMI, FLORIDA 33116-0818.

Please fill in your product information and retain for your records.

Model _____	Serial No. _____	Purchase Date _____
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WARRANTY REGISTRATION CARD

Model Purchased _____

Serial Number _____

Date Purchased (month/day/year) _____

Dealer Name and Location _____

Dr. Miss Mr. Mrs. Ms.

Name _____

Address _____

City _____ State _____ Zip _____

Telephone () _____ email _____

Please take a moment to fill out our warranty registration card. The information helps us to get to know you better and develop the products you want.

Age:

- Under 25
- 25-34
- 35-44
- 45-54
- 55 & over

Income:

- Under \$44,999
- \$45,000-\$59,999
- \$60,000-\$74,999
- \$75,000-\$99,999
- \$99,999-\$150,000
- \$150,000-\$99,999
- \$99,999-\$200,000
- Over \$200,000

Occupation:

- Arts/Entertainment
- Business Owner
- Engineer
- Finance/Accounting
- General Office
- Management
- Professional
- Sales/Marketing
- Student
- Tradesperson

**Musical tastes:
(Please check
all that apply)**

- Alternative
- Classical
- Country
- Jazz
- New Age
- Popular
- R&B
- Rock
- Other _____

**How did you hear
about Niles?**

- Architect/Developer
- Custom Installer
- Direct Mail
- Friend/Family
- In-Store Display
- Interior Designer
- Magazine Ad
- Mail-Order Catalog
- Newspaper Ad
- Product Brochure
- Product Review
- Retail Salesperson
- Internet
- Other

**What magazines
do you read?**

1. _____
2. _____
3. _____

**Who will install
the product?**

- Custom Installer
- Electrician
- Friend
- Myself

**Which factor(s) influenced
the purchase of your Niles
product? (Please check
all that apply)**

- Ease of Use
- Price/Value
- Product Features
- Quality/Durability
- Reputation
- Style/Appearance
- Warranty

Do you . . . ?

- Own a House. If yes,
how many square feet?

- Own a Town House/
Condominium/Co-op

- Rent an Apartment

- Rent a House

**Are you interested in
receiving literature on
other Niles products?**

- Yes
- No

**Are there products/
capabilities that you would
like to see introduced?**



BLENDING HIGH FIDELITY AND ARCHITECTURE®

Niles Audio Corporation
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1-305-238-4373

1-800-BUY-HIFI - www.nilesaudio.com

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